



Supply Chain Management @ Dell Computer Corporation

Inventory Velocity through eBusiness

Frank Miller

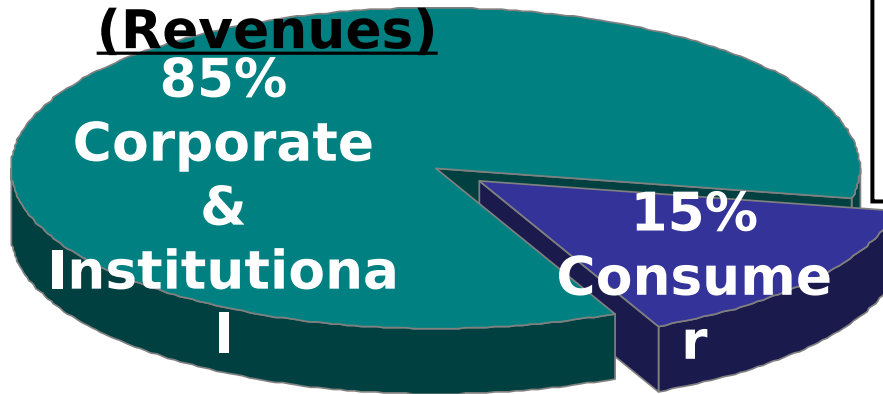
Vice President - Government Operations

April 2002



Dell Facts

Customer Base (Revenues)

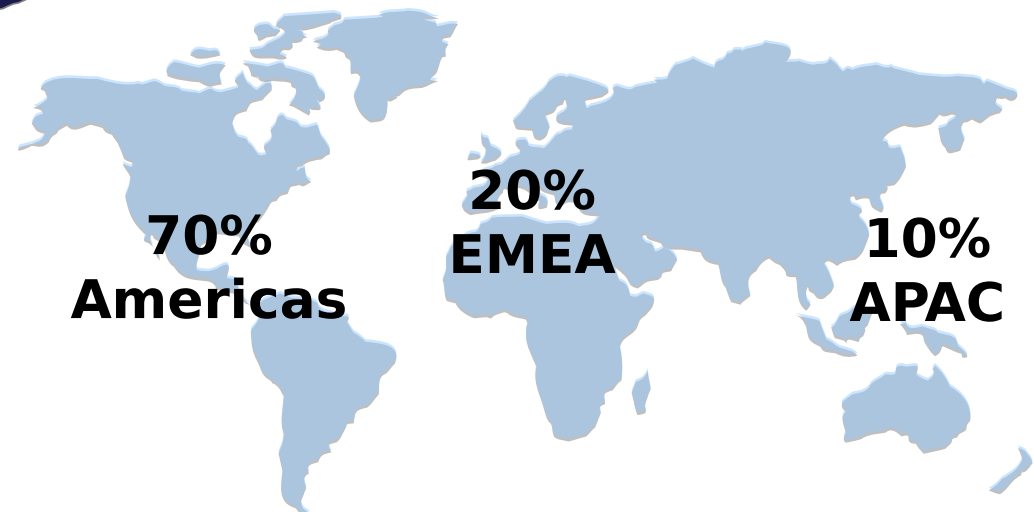


#1 Computer Systems Company
Revenue of \$31.2B last 4 quarters

#48 on the Fortune 500

#7 on Fortune Global "most admired" list

Global Revenues



Global Manufacturing

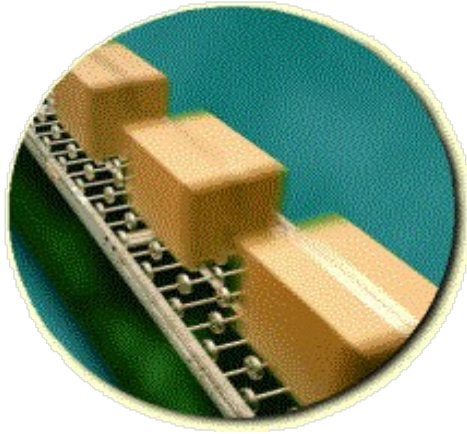
- Austin, Texas, USA
- Nashville, Tennessee, USA
- Eldorado do Sul, Brazil
- Limerick, Ireland
- Penang, Malaysia
- Xiamen, China

34,600 employees worldwide



Dell Direct Model

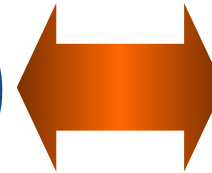
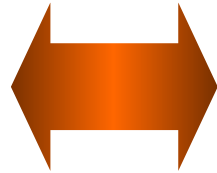
Suppliers



DELL



Customers



- Continuity of Supply
- E-Business Collaboration
- Technology leaders
- Low-cost manufacturers

- Best Customer Experience
- Low Cost Efficiency & Highest Quality
- Partnering/ Virtual Integration

- Product Quality
- Price for Performance
- Customization
- Reliability, Service and Support
- Latest Technology

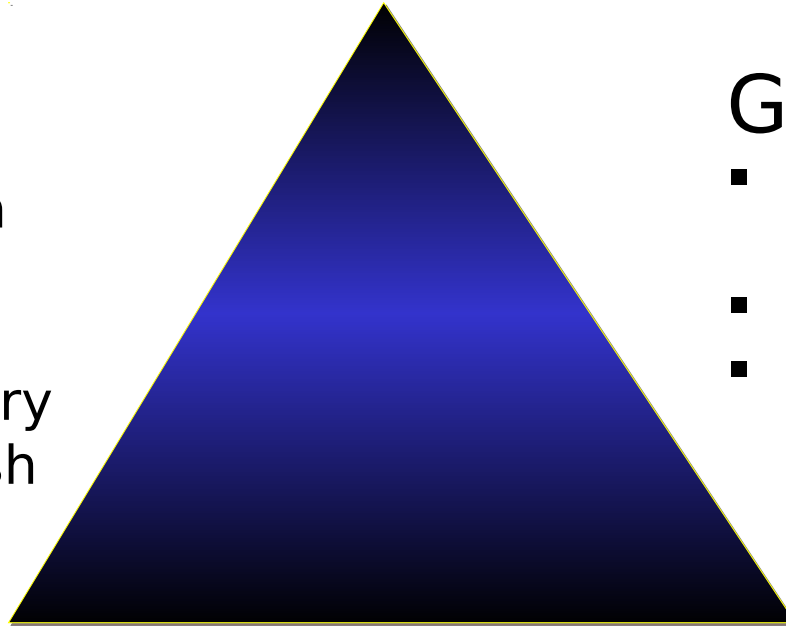


Q4 FY 02 Performance

(Fiscal period ended 1 Feb
2002)

Liquidity

- Generated \$1B in cash from operations
- 4 days of inventory
- \$8.3 billion in cash and investments



Growth

- Dell units +11%
market down -6%
- Revenues +8% Q/Q
- #1 WW, #1 US

Profitability

- Gross Margins = 17.6%
- Operating Margin = 7.4%, +60 bp Y/Y
- OPEX percent of revenue all-time low 10.2%



SCM Business Impact

...

2QFY94

- Then and Now

4QFY02

\$ 701M

-

Revenue

\$ 8B

\$ (154)M

Cash from ops

\$ 1B

\$ (76)M

Net Income

\$ 456M

55

Days Sales of
Inventory

4

> 60

days

Cash Conversion

(36) days

< \$0

Cycle

\$8.3B

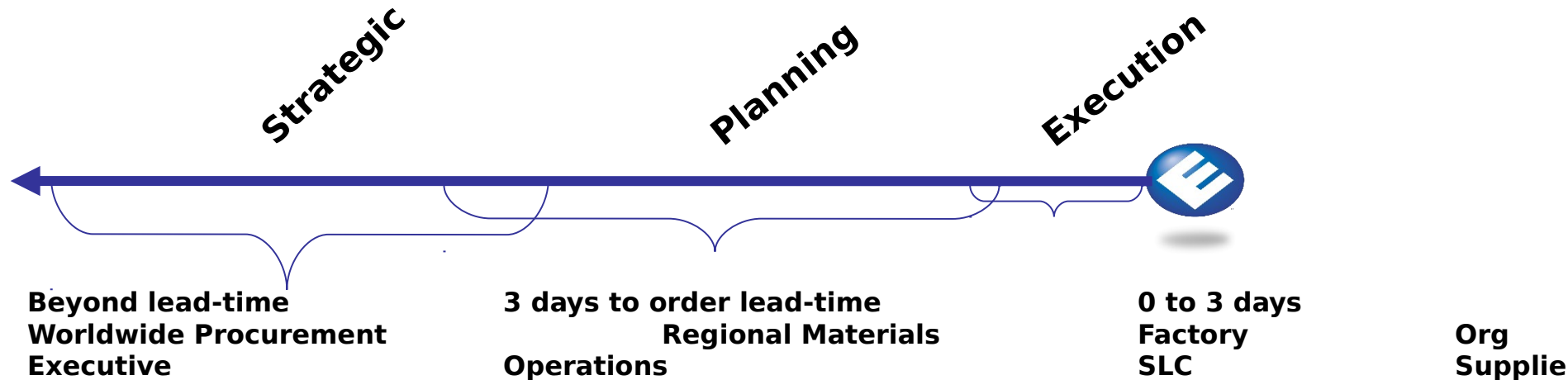
What a difference 34 quarters make !!!

Cash\inv



Intense Focus through:

- Separate internal organizations:
 - Looking at different parts of the inbound supply chain
 - Dealing with different people at the supplier



Low inventory does not equal Supply Issues

But it does equal Operational Efficiencies .

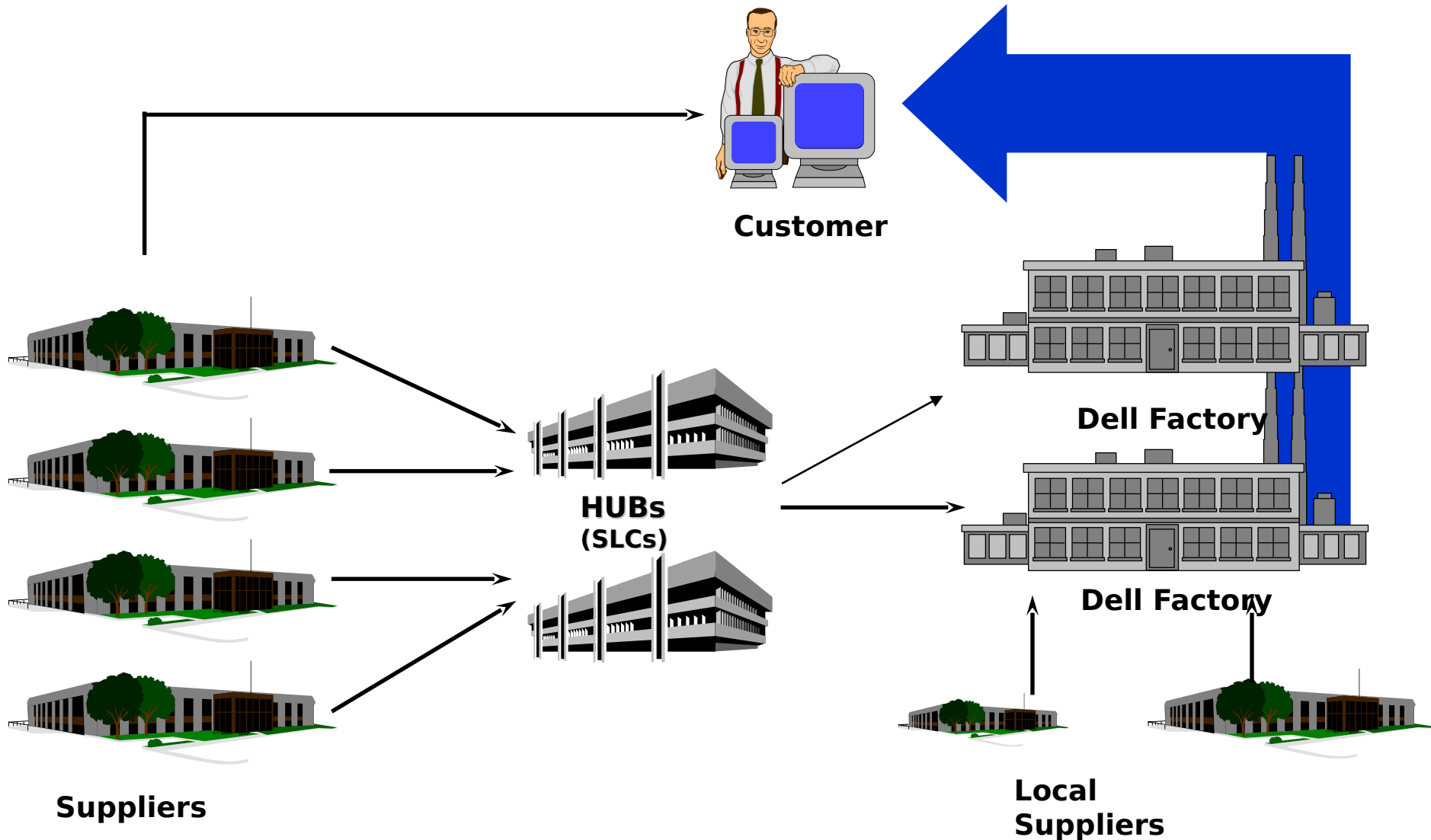


Dell's Global Supply Chain Challenges

- **~70% of revenue = material purchases**
- **Inventory values decline rapidly**
- **Average purchased parts lead-time is 45 days**
- **Customer fulfillment time is less than 5 days**

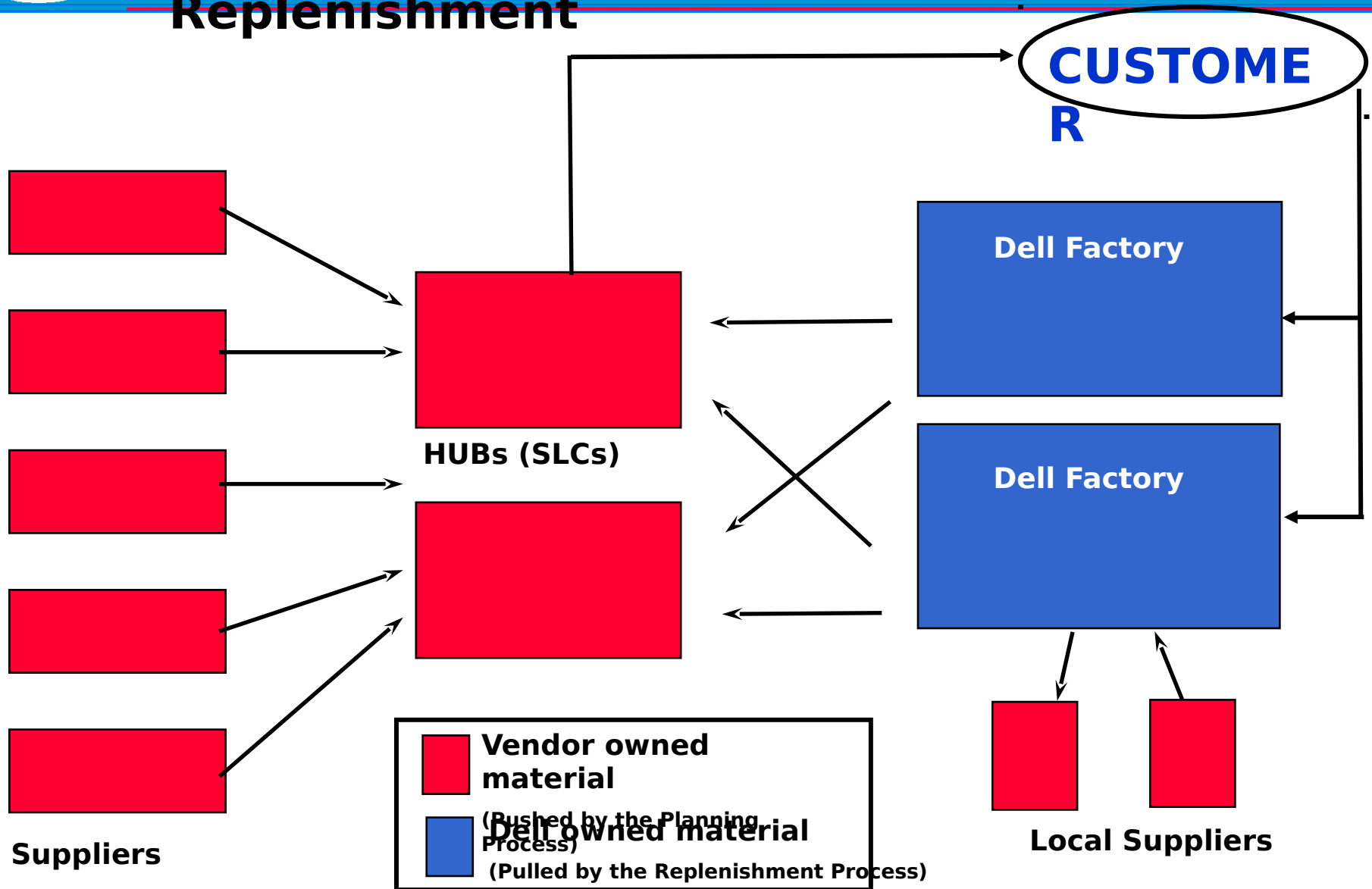


Dell's Physical Supply Chain - Simple v





Inventory Ownership / Planning & Replenishment





Changes to enable the Dell Direct Model

- **Absolute synchronization between manufacturing and sales**
- **Separate material planning from execution**
- **Consistent global tools, processes, performance metrics**
- **Planning by exception**
- **Pull material to order - eliminate warehouses**
- **Meaningful collaboration across the supply chain**
- **Worldwide views of demand and supply per part**
- **Customize information views by function**



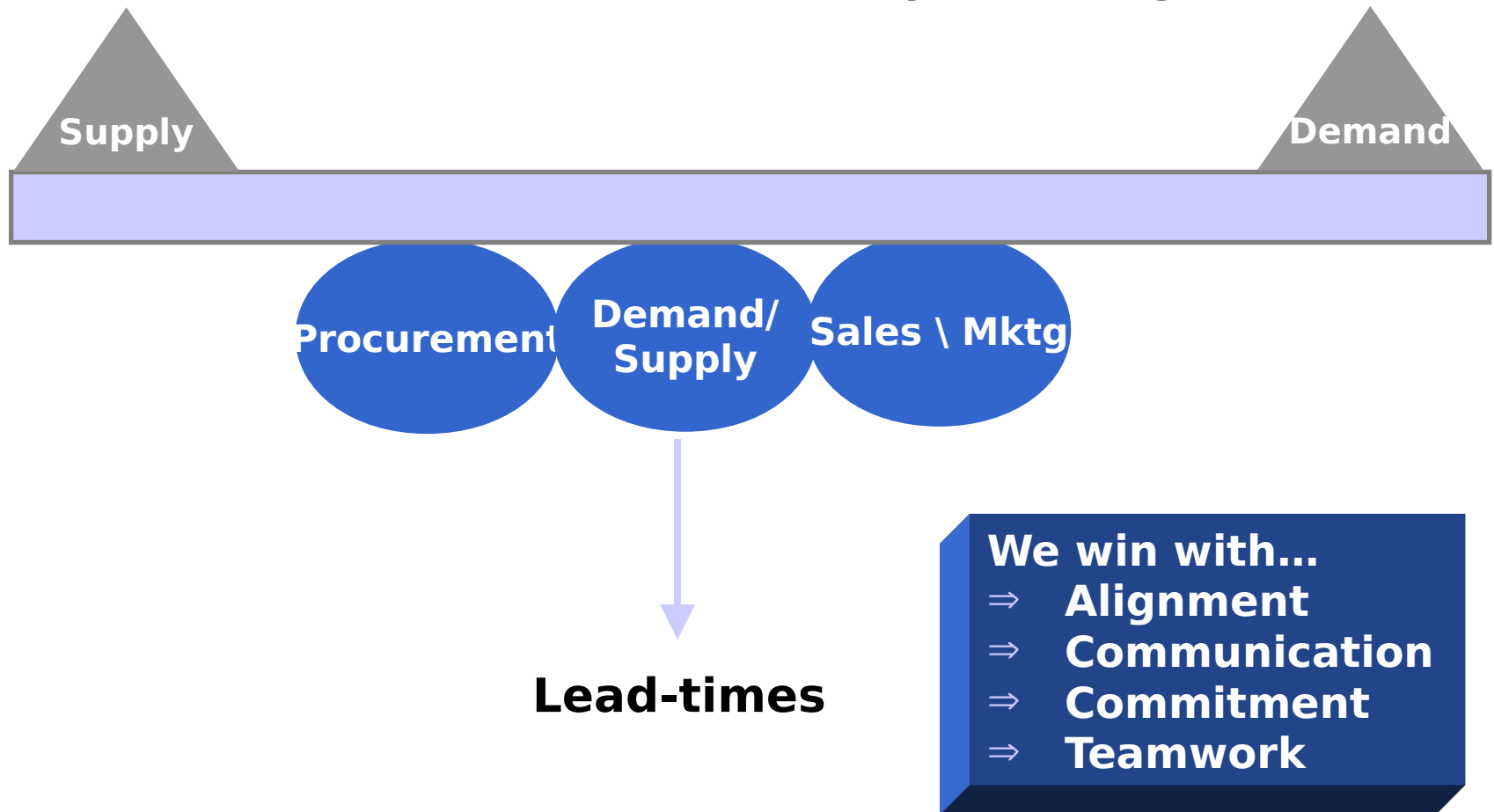
Basic Principles of SCM @ Dell

- **Buy to Plan - Build to Order**
- **Always have enough - Nothing left over**
- **Precision Transitions**
- **Forecast = Buy = Sell**
- **Reality based conversations - “Be Direct”**
- **Relentless Demand : Supply Balancing**



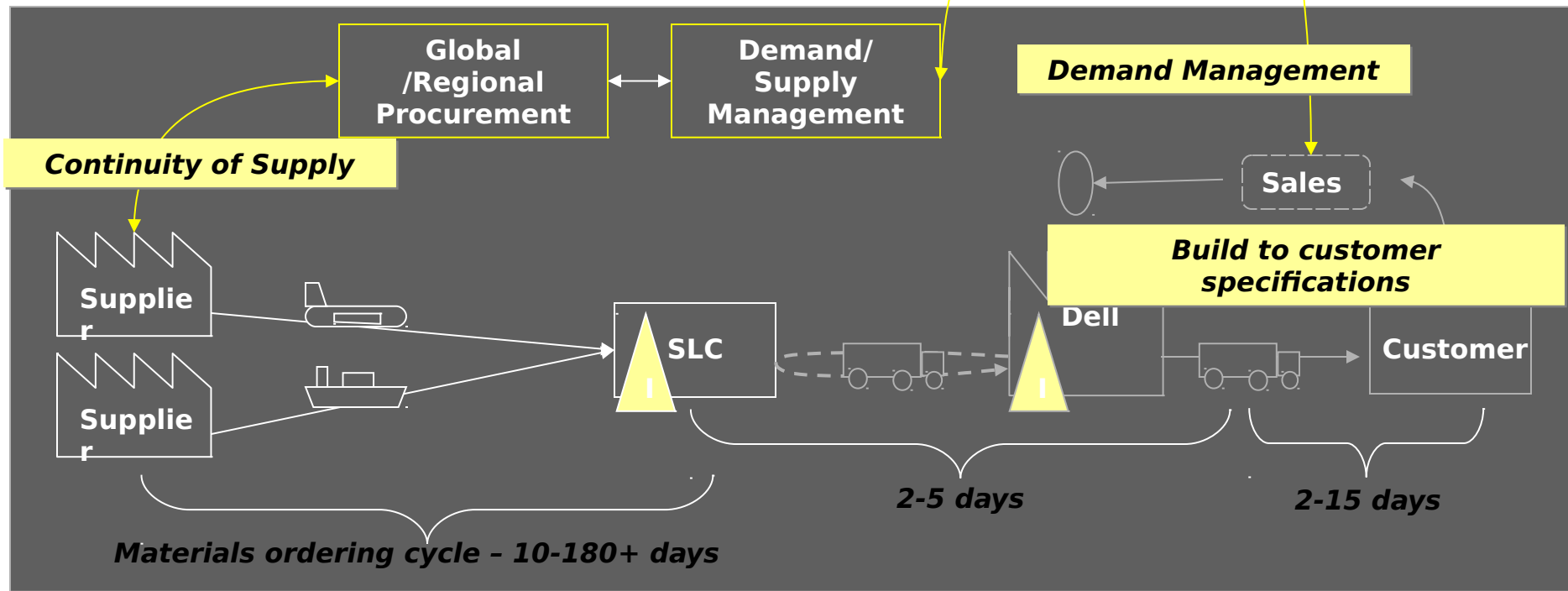
At the Core of Dell's SCM ...

"Relentless Demand : Supply Balancing"





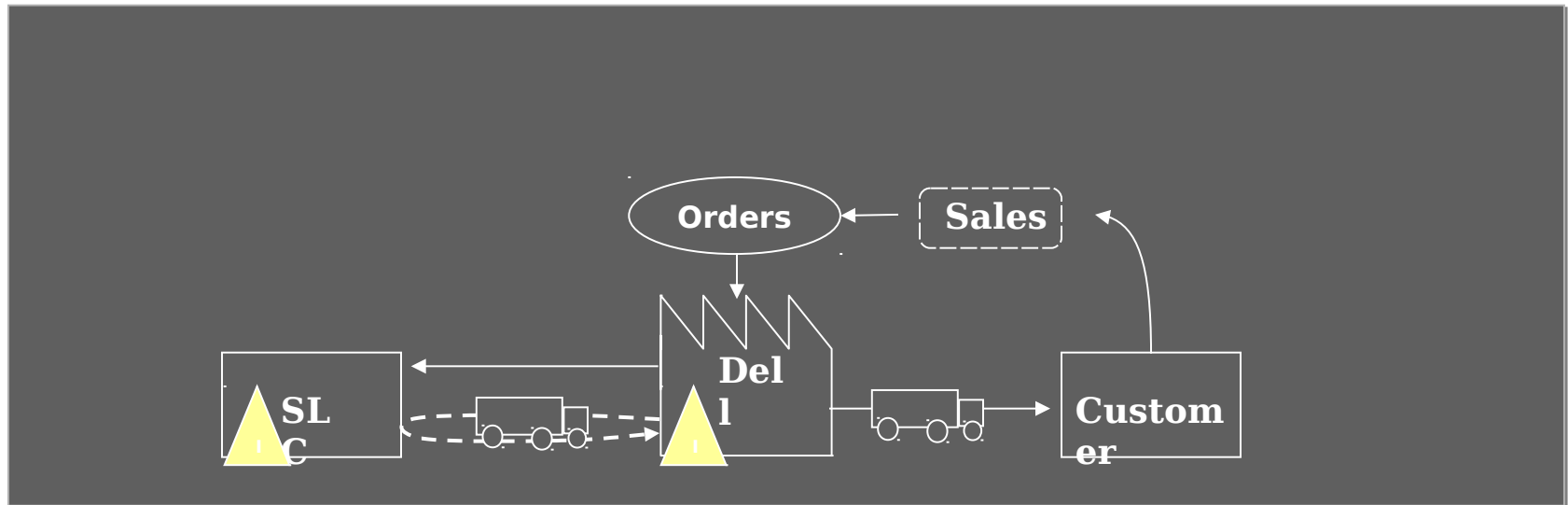
Dell Supply Chain Planning



- **Supply Chain Management** coordinates information, materials, and logistics to support customer requirements.
- **Supply constraints** are continuously communicated to sales and managed at point of sale.
- **Focus on continuity of supply** and direct vendor relationships ensure material availability.



Dell Order Fulfillment Cycle



- **Orders are received from Sales to Factory**
- **Material is pulled & delivered from “Supplier Logistics Center” to the factory**
- **Computers are custom built in ~8 hours and shipped to customers**
- **No computer is ever built without a specific customer order**



Supply Chain Management @ Dell

Dell's Direct Model is a wonderful thing ...

- **Customers have immediate access to the latest technology.**
- **Suppliers get their products to market quickly**
- **Quality is improved with fewer touches.**
- **Communication is immediate and accurate.**
- **Cost savings and efficiencies are passed on to our Customers.**

Increasing the velocity of “everything” is critical



The Dell Model: Simple, Focused, Efficient

Keep It Simple...Direct



Execute Operational Efficiency



Competitive Advantages



Measure What Matters

